

### REMARKS

Applicants respectfully request re-examination of the above-identified patent application. Claims 1-3, 7-9, 11, 13, 14, 16, and 20 are pending in the present application.

In the Office Action of December 21, 2007 (hereinafter "Office Action"), Claims 1, 2, 7, 8, 13, 14, and 20 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,661,502, to Cheng (hereinafter "Cheng"). Claims 3, 9, and 16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Cheng in view of Japanese Patent Application No. 05-073257, to Matsushita Electric Ind. Co., Ltd. (hereinafter "Kensuke"). Claim 11 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Cheng in view of "Animation From Cartoons to the User Interface" by Bay-Wei Chang (hereinafter "Chang"). Applicants respectfully disagree and submit that Claims 1, 2, 7, 8, 13, 14, and 20 are not anticipated by Cheng; Claims 3, 9, and 16 are not obvious over Cheng in view of Kensuke; and Claim 11 is not obvious over Cheng in view of Chang, because the prior arts fail to teach or suggest certain elements of both the independent and dependent claims, which are discussed in detail later in this response. While applicants disagree with the grounds of rejection cited in the Office Action, in order to advance the prosecution of the present application, Claims 1, 8, and 14 have been slightly amended to clarify antecedent issues.

Pursuant to 37 C.F.R. § 1.111, and for the reasons set forth below, applicants respectfully request reconsideration and allowance of the pending claims. Prior to discussing why applicants believe that the pending claims are in condition for allowance, a brief summary of the disclosed pending subject matter and brief summaries of the teachings of the cited references are provided. These summaries, however, are presented solely to assist the Examiner in recognizing the differences between the pending claims and the cited references and should not be construed as limiting on the disclosed subject matter.

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#### Summary of the Disclosed Subject Matter

The present application is directed to enhancing the visual appearance of a mouse cursor path when mouse travel exceeds a predetermined threshold. In particular, rather than having large gaps between a previous and current mouse location, which in many cases results in a user losing track of the mouse in relation to the screen, additional mouse cursor images are added to the current mouse path. These additional mouse cursor images may be added in a variety of configurations, each configuration providing a unique presentation system that would be beneficial to a user. If the current mouse speed exceeds the predetermined threshold, an enhanced mouse cursor is generated and displayed on the computer display.

#### Summary of Cheng

Cheng purportedly discloses a self-adjusting digital filter for smoothing computer mouse movement using a user-selectable inertial constant for all types of mouse movements, regardless of whether the movement is fast or slow. Corrected mouse position data, or coordinates, are computed using the current actual mouse coordinates and the previous corrected mouse coordinates as adjusted by the inertial constant. A speed-sensitive inertial constant, the value of which is dependent upon the values of a user-selectable speed sensitivity constant, the inertial constant, and the speed of the mouse movement are substituted for the inertial constant such that the amount of filtering that occurs is at least partially dependent on the speed of mouse movement.

#### Summary of Kensuke

Kensuke purportedly discloses a cursor controller to make a cursor easy to recognize by changing the cursor to be noticeable in proportion to the cursor moving speed by controlling the cursor directing the input position on a computer screen.

### Summary of Chang

Chang purportedly discloses a Self user interface for the application of cartoon animation techniques as a means of making the interface easier to understand and more pleasant to use.

### 35 U.S.C. § 102(b) Rejections

As noted above, the Office Action rejected Claims 1, 2, 7, 8, 13, 14, and 20 under 35 U.S.C. § 102(b) as being anticipated by Cheng. Applicants respectfully disagree. While applicants disagree with the grounds of rejection cited in the Office Action, in order to advance the prosecution of the present application, Claims 1, 8, and 14 have been slightly amended to clarify antecedent issues.

### Claims 1, 8, and 14

For purposes of this discussion, independent Claims 1, 8, and 14 of the present application will be discussed together because the same distinguishing elements over Cheng are recited in each of these claims. Claim 1 recites the following:

1. A method for enhancing a mouse cursor displayed on a computer display, the method comprising:

obtaining the current mouse cursor speed;

determining whether the current mouse cursor speed exceeds a predetermined threshold, and if so:

generating a mouse path between the current and the previous mouse cursor locations;

determining at least one additional cursor location on the generated mouse path between the current and the previous mouse cursor locations on the generated mouse path; and

displaying a mouse cursor image at each additional determined cursor location on the generated mouse path in addition to displaying a mouse cursor image at the current mouse cursor location.

Similarly, Claim 8 recites the following:

8. A computer-readable medium bearing computer-executable instructions which, when executed on a computing device, carry out the method comprising:

obtaining a current mouse cursor speed;

determining whether the current mouse cursor speed exceeds a predetermined threshold, and if so:

generating a mouse path between a current and a previous mouse cursor location;

determining at least one additional mouse cursor location on the generated mouse path between the current and the previous mouse cursor locations on the generated mouse path; and

displaying a mouse cursor image at each additional determined mouse cursor location on the generated mouse path in addition to displaying a mouse cursor image at the current mouse cursor location.

Similarly, Claim 14 recites the following:

14. A method for enhancing a mouse cursor displayed on a computer display, the method comprising:

obtaining mouse cursor information relating to the mouse cursor during the mouse cursor's update display cycle, the mouse cursor information including the mouse cursor's current speed;

generating a mouse path between a current location of the mouse cursor and a previous location of the mouse cursor;

determining at least one additional mouse cursor location on the generated mouse path between the previous and the current mouse cursor locations on the generated mouse path; and

displaying a mouse cursor image at each additional determined mouse cursor location on the generated mouse path in addition to displaying a mouse cursor image at the current mouse cursor location.

Applicants submit that Cheng fails to teach each and every recitation of Claims 1, 8, and 14. More specifically, Cheng does not teach "determining at least one additional cursor location on the generated mouse path between the current and the previous mouse cursor

locations on the generated mouse path" and "displaying a mouse cursor image at each additional determined mouse cursor location on the generated mouse path in addition to displaying a mouse cursor image at the current mouse cursor location."

The Office Action asserts that Cheng teaches in Figure 3 additional cursor image locations on line 302a corresponding to the enhanced mouse track as compared to cursor image locations on line 302b corresponding to the actual mouse track because the x's on line 302a outnumber the o's on line 302b to read on the Claim recitation of determining at least one additional cursor location on the generated mouse path between the current and the previous mouse cursor locations. The Office Action further asserts taking the starting point of lines 302 in Figure 3 as a "previous position" and the end point as the "current position." The Office Action further cites Col. 4, line 55 - Col. 5, line 9, of Cheng in support of these assertions. Applicants respectfully disagree.

The lines in Figure 3 are derived by the method of operating the digital filter described in Figure 2. Figure 2 teaches getting the current cursor position at step 200. Next, at step 202, the speed of the mouse is calculated. Next, at step 204, the inertial constant value is calculated. Next, at step 206, the previous cursor position is obtained. Next, at step 208, the corrected cursor position is calculated. Next, at step 212, the corrected cursor position is saved as the previous cursor position. Finally, at step 214, the corrected cursor position, i.e., the previous cursor position, is outputted or displayed. In other words, for every current and previous cursor positions, only the previous position is displayed. This means that the number of cursor positions displayed is one less than the actual number of cursor positions. Even though the Office Action construes the starting point of the line 302a as a "previous position" and the end point of the line as the "current position," according to the method described in Figure 2, the number of cursor positions displayed can never be equal to or more than the actual number of

cursor positions. In other words, Cheng never explicitly or implicitly teaches determining at least one additional cursor location on the generated mouse path between a "current position" and a "previous position." Applicants are unclear why the number of x's illustrated on line 302a outnumber the number of o's illustrated on line 302b. One purported reason for illustrating the number of x's more than the number of o's could be to visually illustrate a smoother cursor path because if the number of points increase, the length of line segments between these points decreases, which gives a visual perception of a smoother curve. Nonetheless, since the lines 302a and 302b are derived using the method described in Figure 2, the number of x's must be at least one less than the number of o's. Accordingly, Cheng fails to teach "determining at least one additional cursor location on the generated mouse path between the current and the previous mouse cursor locations on the generated mouse path."

The Office Action asserts that because x's representing the enhanced mouse cursor images outnumber the o's representing the regular mouse cursor images as can be seen in Figure 3, Cheng teaches "displaying a mouse cursor image at each additional determined mouse cursor location on the generated mouse path in addition to displaying a mouse cursor image at the current mouse cursor location," as recited in Claims 1, 8, and 14. As noted, applicants are unclear why the number of x's outnumber the o's in the illustration of Figure 3, but since lines 302a and 302b are drawn using the method described in Figure 2, the number of x's displayed has to be one less than the number of o's. Accordingly, Cheng fails to teach "displaying a mouse cursor image at each additional determined mouse cursor location on the generated mouse path in addition to displaying a mouse cursor image at the current mouse cursor location."

As explained above, Cheng fails to teach or suggest a method for enhancing a mouse cursor comprising determining at least one additional cursor location on the generated mouse

path between the current and the previous mouse cursor locations on the generated mouse path and displaying a mouse cursor image at each additional determined mouse cursor location on the generated mouse path, in addition to displaying a mouse cursor image at the current mouse cursor location. Accordingly, applicants respectfully request withdrawal of the pending rejection under 35 U.S.C. § 102(b) with regard to Claims 1, 8, and 14, and the allowance of Claims 1, 8, and 14.

#### Claims 2, 7, 13, and 20

Claims 2 and 7 depend from independent Claim 1, Claim 13 depends from independent Claim 8, and Claim 20 depends from independent Claim 14. As discussed above, Cheng fails to teach each and every element of independent Claims 1, 8, and 14. Accordingly, for the above-mentioned reasons, Claims 2, 7, 13, and 20 are also not anticipated by Cheng. Applicants respectfully request withdrawal of the pending rejection under 35 U.S.C. § 102(b) with regard to Claims 2, 7, 13, and 20, and the allowance of Claims 2, 7, 13, and 20. Furthermore, Claim 2 is not anticipated by Cheng for additional reasons, which are discussed in further detail below.

#### Claim 2

The Office Action asserts that Cheng teaches the output of coordinates, which corresponds to displaying the mouse cursor image on a computer display at those coordinates, to read on the claim recitation displaying an enhanced mouse cursor image on the computer display. Applicants respectfully disagree. Applicants note that an enhanced mouse cursor is generated in a variety of manners generally described in Figures 4, 6, 9, 12, and 13 of the present application and is distinctly different from a "normal" cursor image. With that in mind, nowhere does Cheng teach an "enhanced" cursor image. The display of a mouse cursor image at the outputted coordinates in Cheng is a "normal" cursor image. Accordingly, Cheng fails to teach "displaying an enhanced mouse cursor image on the computer display."

35 U.S.C. § 103(a) Rejections

As noted above, Claims 3, 9, and 16 were rejected as being obvious in view of Cheng and Kensuke. However, applicants assert that Cheng fails to disclose each element of the independent claims from which Claims 3, 9, and 16 depend. Moreover, Kensuke fails to teach or suggest the deficiencies associated with Cheng. Cheng and Kensuke, alone and in combination, fail to disclose or otherwise make obvious each element recited in Claims 3, 9, and 16 when read in combination with their independent claims. Accordingly, applicants submit that Claims 3, 9, and 16 are in condition for allowance in view of Cheng and Kensuke, and request that the 35 U.S.C. § 103(a) rejections be withdrawn and the claims allowed.

As noted above, Claim 11 was rejected as being obvious in view of Cheng and Chang. However, applicants assert that Cheng fails to disclose each element of independent Claim 9 from which Claim 11 depends. Moreover, Chang fails to teach or suggest the deficiencies associated with Cheng. Cheng and Chang, alone and in combination, fail to disclose or otherwise make obvious each element recited in Claim 11, when read in combination with independent Claim 9. Accordingly, applicants submit that Claim 11 is in condition for allowance in view of Cheng and Chang and request that the 35 U.S.C. § 103(a) rejection be withdrawn and the claim allowed.



### CONCLUSION

In view of the amendments and remarks above, applicants respectfully submit that the present application is in condition for allowance. Reconsideration and reexamination of the application and allowance of the claims at an early date are solicited. If the Examiner has any questions or comments concerning the foregoing response, the Examiner is invited to contact the applicants' undersigned attorney at the number below.

Respectfully submitted,

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